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(12) UK Patent Application

(19) GB (11) 2 266 628 (13) A

(43) Date of A publication 03.11.1993

(21) Application No 9307845.9

(22) Date of filing 15.04.1993

(30) Priority data

(31) 920301

(32) 16.04.1992

(33) FI

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(51) INT CL⁵

H01R 43/00 11/01 // H01R 4/36

(52) UK CL (Edition L)

H2E EEKH E160

B3A A49J

B3V V10

(56) Documents cited

EP 0141047 A1 US 4829146 A

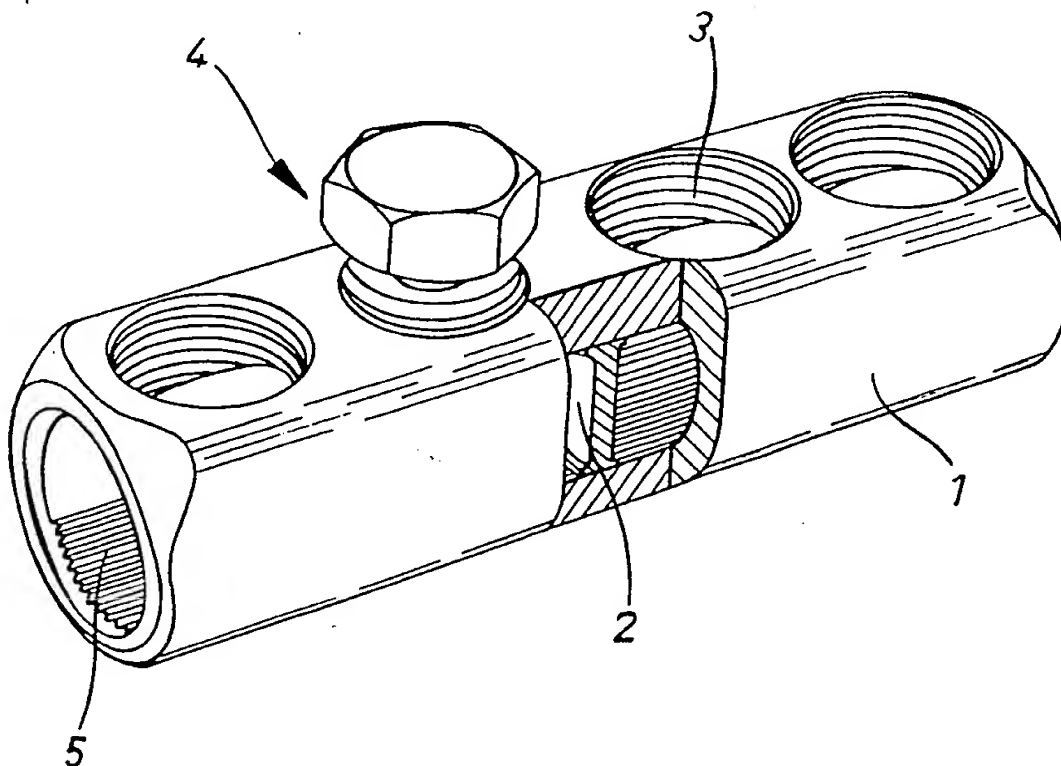
(58) Field of search

UK CL (Edition L) B3A, B3V, H2E

INT CL⁵ H01R

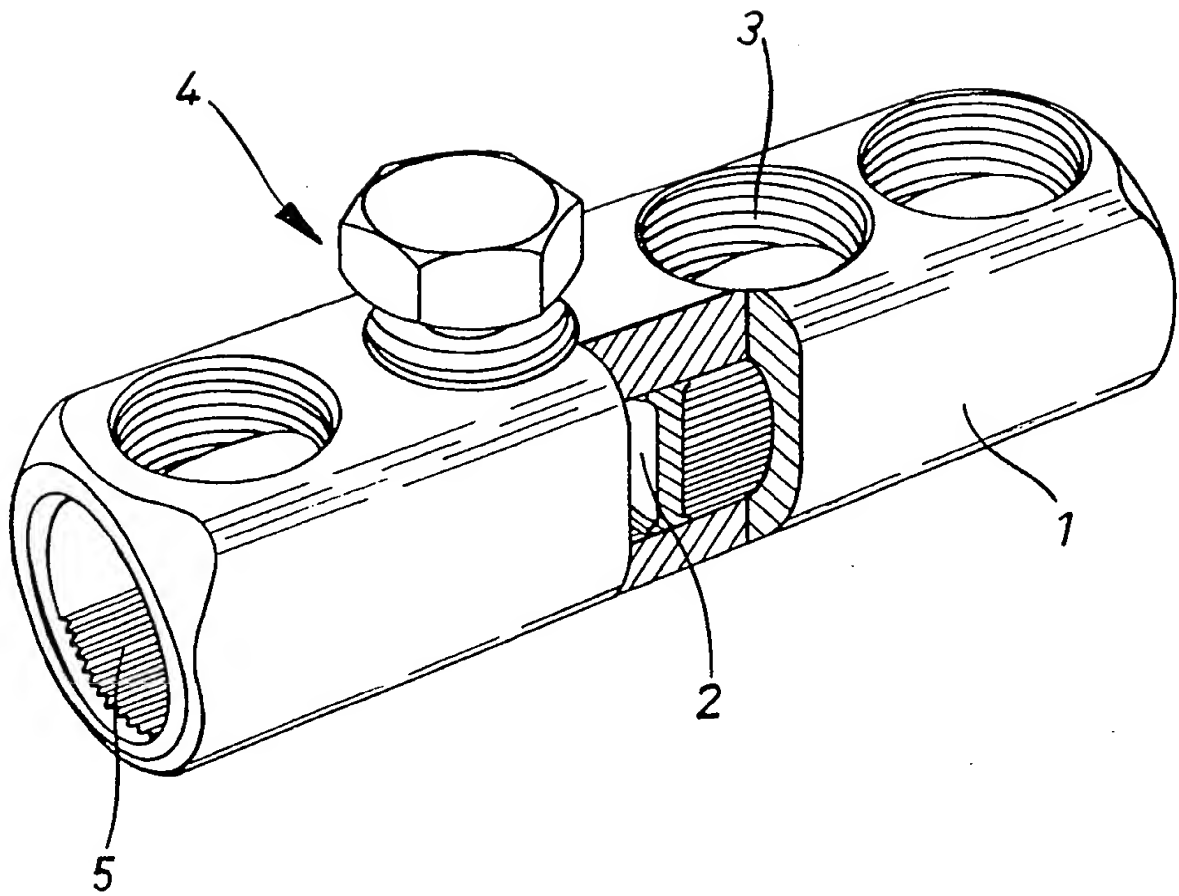
(54) Cable connector

(57) A cable connector fitted with torque limiting screws for joints in electrical cables. The tubular body (1) contains a central partition (2) that was initially a loose fit but whose mid-section has been compressed in such a manner that the circumferential rim material of partition (2) is tightly pressed against the internal surface of the bore. On each side of partition (2) there is at least one tapped hole (3) to receive a clamping screw (4) that shears at a preset torque. Internal grooves (5) improve electrical contact with the cables.



This print takes account of replacement documents submitted after the date of filing to enable the application to comply with the formal requirements of the Patents Rules 1990.

GB 2 266 628 A



"Cable Connector"

The present invention relates to a cable connector fitted with clamping screws for splice joints in electrical cables.

It is prior known to construct a cable by drilling a sleeve body from the opposite directions to provide it with coaxial bores which are not, however, drilled to meet each other but instead a partition is left therebetween to limit the insertion depth for the end of a cable and to produce a pressure-tight partition.

The present invention seeks to provide a cable connector whose body can be made of prefabricated tube so that it is not necessary to drill any holes.

Accordingly the present invention provides a cable connector comprising an elongate body having an axially extending bore with an internal partition wall, dividing it into two sections longitudinally, the partition wall being fixed in position by compressing its central region so as to force its periphery into engagement with the internal surface of the bore.

Preferably the bore is of circular cross-section and the partition wall is correspondingly disc-shaped.

Preferably the internal surface of the bore is grooved to improve the electrical contact with the cable.

Preferably the body is also provided with at least one tapped hole for a clamping screw in each longitudinal section, and the screws may be of the torque limiting type so as to prevent them from being overtightened.

In a preferred embodiment of the invention the screws are provided with heads which break off when they are tightened beyond a certain point.

The cable connection in accordance with the

invention offers the following advantages: saving raw material (as compared to drilling holes), saving labour in production, and more freedom provided by different techniques in selecting the bore shape.

One exemplary embodiment of the invention is illustrated in the accompanying drawing, showing a cable connector in perspective view and partially cut away.

The connector body 1 is tubular, and its inner surface is grooved at the manufacturing stage to provide good contact with wires to be joined. In the middle of the connector bore there is a pressure-tight partition 2, comprising a disc which is initially a loose fit in the bore. After positioning in the bore the mid-section of the disc is compressed so that the circumferential edges are expanded tightly against the inner surface of the sleeve hole.

On each side of partition 2 there are two tapped holes 3 for torque limiting screws 4, only one of which is shown in the drawing. The screw 4 formed with a neck just below the head, so that as it is tightened against the end of a wire or a cable contained in the connector, the head will break off upon reaching a sufficient tightness.

CLAIMS

1. A cable connector comprising an elongate body having an axially extending bore with an internal partition wall, dividing it into two sections longitudinally, the partition wall being fixed in position by compressing its central region so as to force its periphery into engagement with the internal surface of the bore.
2. A cable connector according to claim 1 in which the bore is of circular cross-section and the partition wall is correspondingly disc-shaped.
3. A cable connector according to claim 1 or claim 2 in which the internal surface of the bore is grooved to improve the electrical contact with the cable.
4. A cable connector according to any preceding claim in which the body is also provided with at least one tapped hole for a clamping screw in each longitudinal section.
5. A cable connector according to claim 4 in which the screws are provided with heads which break off when they are tightened beyond a certain point.
6. A cable connector substantially as herein described with reference to the accompanying drawing.

- 4 -

Patents Act 1977
Examiner's report to Comptroller under
Section 17 (The Search Report)

Application number
307845.9

Relevant Technical fields

(i) UK Cl (Edition L) H2E B3A B3V

(ii) Int Cl (Edition 5) H01R

Databases (see over)

(i) UK Patent Office

(ii)

Search Examiner

MRS J BANNISTER

Date of Search

22 JULY 1993

Documents considered relevant following a search in respect of claims ALL

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
A	EP 0141047 A1 (WECO)	
A	US 4829146 (AMERACE)	

SF2(p)

AT - doc99\fil001446

Category	Identity of document and relevant passages	Relevant to claim(s)

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